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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/616,826	07/10/2003	Mark Bradford Clifton	Clifton 9-110-23	2685

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EXAMINER

FICK, ANTHONY D

ART UNIT	PAPER NUMBER
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1753

DATE MAILED: 09/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/616,826

Applicant(s)

CLIFTON ET AL.

Examiner

Anthony Fick

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,4-9 and 11-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-9 and 11-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Remarks*

1. Applicant's cancellation of claim 3 has made the objection to the claim moot and is thus withdrawn. Applicant's amendments to the claims have overcome the previous rejections. Rejections on the amended claims appear below.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 through 2, 4, 6 through 9, 11 and 13 through 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sundhar (U.S. 4,955,203) in view of Castellano (U.S. 4,877,074).

Sundhar discloses an air conditioner for a parked automotive vehicle. The apparatus shown in figure 1, comprises a solar energy collector cell, 32, configured to convert light into electrical current for transfer to a device, shown in figure 6, and a portable substrate configured to support the solar energy collector, 12, the portable substrate to be used in conjunction with a vehicle (title of patent). Sundhar further discloses the substrate, 12, is foldable (column 3, paragraph 3).

Regarding claim 2, figure 6 shows the connector coupled to the solar energy cell to transfer electrical current to a device, 58.

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Regarding claim 4, Sundhar discloses the substrate is a sun shield associated with vehicles (column 2, paragraph 12).

Regarding claim 6, figure 6 shows the devices powered by the solar energy collector cell. The devices include a fan, a cooling unit, and a heat exchange unit (column 3, paragraph 4 and column 4, paragraph 1).

Regarding claim 7, Sundhar also discloses the substrate is positioned on the interior side of a window (column 4, paragraph 2).

Regarding claim 8, the solar energy collector is a plurality of solar cells connected by a fastener to the solar panel shield (column 3, paragraph 1).

Regarding claim 9, the plurality of solar cells is connected to the solar panel shield and connected to a device as shown in figure 6.

Regarding claim 11, the solar panel shield is a sun shield associated with vehicles that possess a window (column 2, paragraph 12).

Regarding claim 13, the multiple devices are shown in figure 6.

Regarding claims 14 and 15, the portable substrate is on the interior side of the window and the solar panel shield has a plurality of solar cells connected to it by fasteners.

Regarding claim 16, the solar panel shield is also a sun shield comprising solar cells, a fastener, and a connector.

Regarding claim 17, once again multiple devices are shown in figure 6.

Regarding claims 18 and 19, the solar panel shield has solar cells connected by fasteners and the sun shield is used within any automotive vehicle (title of patent).

The difference between Sundhar and claims 1, 9 and 16 is the requirement of perforations in the substrate for folding.

Castellano teaches a sun screen for a vehicle. The sun screen contains a number of perforations that couple adjacent sections of the screen (abstract and figure 1).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the perforations of Castellano within the sun screen of Sundhar because the perforations facilitate folding of the screen that then may be retained in the folded configuration (Castellano abstract). Because Castellano and Sundhar are both concerned with sun screens for vehicles, one would have a reasonable expectation of success from the combination. Thus the combination meets claims 1, 9 and 16. The disclosure of Sundhar with respect to each dependent claim is stated above and thus the combination also meets the remaining dependent claims.

4. Claims 5 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sundhar in view of Castellano as applied to claims 1 through 2, 4, 6 through 9, 11 and 13 through 19 above, and further in view of Dessel (U.S.P.G.Pub 2003/0221717).

The disclosure of Sundhar in view of Castellano is as stated above for claims 1 through 2, 4, 6 through 9, 11 and 13 through 19.

The difference between Sundhar in view of Castellano and claims 5 and 12 is the requirement of a specific device integral to the substrate.

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Dessel teaches a composite thermal system that utilizes thin film thermoelectric and thin film photovoltaic layers. The photovoltaic layer provides power for the integral thermoelectric cooling units (paragraph 0032).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the thin film composite thermal system of Dessel as the photovoltaic layer on the apparatus of Sundhar in view of Castellano because the composite can actively cool the internal automobile space when exposed to sunlight (Dessel paragraph 0078). Because Sundhar in view of Castellano and Dessel are concerned with utilizing photovoltaic cells for powering thermoelectric elements, one would have a reasonable expectation of success from the combination. Thus the combination meets claims 5 and 12.

### ***Response to Arguments***

5. Applicant's arguments filed July 18, 2006 with regards to the patent to Sundhar have been fully considered but they are not persuasive. Applicant argues that the device of Sundhar appears to roll around the rod within the figure. The examiner respectfully disagrees. Sundhar mentions several times about the solar panel shield in column 3. The solar panel shield is "unfolded along the dashboard" lines, 16 and 17, and "folded preferably into a width of approximately 1"-2" as can be seen in Fig. 5" lines 23 and 24. Sundhar also discloses the solar panels are "folded against one another" line 25 and describes them as "folded panels" in lines 28 and 30. It is the position of the examiner that the substrate is folded along the black vertical lines shown in figure 1. The rejection of Sundhar in view of Castellano states that it would be obvious to utilize

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perforations at those black lines to facilitate the folding of the substrate. This new grounds rejection was necessitated by applicant's amendments.

***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Fick whose telephone number is (571) 272-6393. The examiner can normally be reached on Monday thru Friday 7 AM to 4 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Anthony Fick *ADF*  
AU 1753  
September 12, 2006

  
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